

# Drought 2014

Monthly Status Report  
**JULY 2014**





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# Executive Summary

## EXECUTIVE SUMMARY

The purpose of this report is to provide a monthly water supply and water use reduction outlook in response to the 2014 Drought. The data and analysis provided includes local and imported water conditions, in addition to detailed monthly water use and savings by the county's major water retailers.

### Background

On January 28, 2014, the Santa Clara Valley Water District's (district) Board of Directors (Board) received the initial water supply outlook and set a preliminary water use reduction target equal to 10 percent of 2013 countywide water use. On February 25, 2014, the Board approved a resolution setting a countywide water use reduction target equal to 20 percent of 2013 water use through December 31, 2014, and recommended that retail water agencies, local municipalities and the County of Santa Clara (County) implement mandatory measures as needed to achieve the 20 percent water use reduction target. This action was based on the district's Water Shortage Contingency Plan and estimated 2014 water supply conditions that showed groundwater reserves would reach the Stage 3 ("Severe") level by the end of the calendar year if water use reduction measures are not implemented.

In February 2014, the district developed a strategic approach to respond to the drought and the Board's call for conservation. A cross-functional team from across the organization was convened and the Drought Response Strategy was formulated. The district's comprehensive drought response is being implemented through fifteen strategies grouped into four general categories: (A) water supply and operations; (B) water use reduction; (C) drought response opportunities; and (D) administrative and financial management. The specific strategies are detailed in Section 4.

### Current Status

Severe drought conditions continue throughout California. With very little local watershed runoff, many of the district's 10 reservoirs are 70 percent of their 20-year average July 1 storage level. Many creeks and recharge ponds are drying as a result of the lack of surface water available. Our largest local reservoir, Anderson Reservoir has been filled with imported water to ensure adequate treatment plant supplies this summer.

The district has been working with water retailers, municipalities and the County to increase water conservation efforts and public outreach, and to implement other actions to reduce water use. As these efforts begin to take effect, preliminary water use data from February through May 2014 indicate that cumulative countywide savings of approximately 12 percent were realized, compared to the same period in 2013.

Local water retailers have responded to the district's call in various ways. Several are calling for 20 percent savings and have activated or adopted water use restrictions. Common SFPUC retailers are calling for 10 to 15 percent voluntary reductions. Nearly every water retailer is increasing their outreach and education efforts.

### Report Format

The remainder of this report includes our monthly Water Tracker report that contains a summary and assessment of trends in water supply and use in Santa Clara County. Water use and savings report for the county and the individual retailers follow. Water use and savings calculations and graphs represent the period of February to December as there was no call for short-term reductions for the month of January. 2013 data is provided for comparison as it is the base year set for water savings calculations.

### Disclaimer

The data presented within this report is preliminary and subject to change. The data is presented prior to complete QA/QC and validation in an effort to quickly identify trends in water supply conditions and water use within the county. Due to the critical nature of the 2014 drought, it is important that the district and the community have an understanding of conditions and effectiveness of water conservation efforts. Please see the Data Collection Methodology section at the end of this report for further description and disclaimers regarding the water use data reported herein. The water use data presented in the monthly reports are based on water retailer water use, which comprises just above eighty percent of countywide water use. The remaining water use consists of small or independent groundwater well users, district untreated surface water customers and recycled water.

A monthly assessment of trends in water supply and use for Santa Clara County, California

## Outlook as of July 1, 2014

The rainfall year ended June 30th, and it was preliminarily the second driest rainfall year on record at the San Jose gauge. According to the U.S. Drought Monitor, Santa Clara County is in the highest drought intensity category: D4 – Exceptional Drought. Last year at this time, Santa Clara County was only in the D2 – Severe Drought intensity category. Local watersheds are very dry and reservoirs levels are dropping, except for Anderson and Calero Reservoirs which have been filled with imported water to meet summer demands. Chesbro Reservoir storage is currently at less than 5% of its capacity. Due to the lack of groundwater recharge and increased pumping from the drought, groundwater levels are dropping. Based on the District's Water Shortage Contingency Plan, the Board set a 20% water use reduction target to ensure adequate groundwater reserves for 2015. Cumulative 2014 water savings through April are estimated at 13%, compared to 2013 usage.

### Weather



#### Rainfall in San Jose

- Month of June = 0.0 inches
- Total-to-date = 6.10 inches or 42% of average to date (Rainfall year is July 1 to June 30)

### Local Reservoirs



- Total July 1 storage = 78,981 acre-feet\*
    - » 70% of 20-year average for this date
    - » 47% of total capacity
    - » 64% of restricted capacity storage (169,009 acre-feet total storage capacity limited by seismic restrictions to 122,924 acre-feet)
  - Low storage levels in Chesbro, Guadalupe, Uvas, and Stevens Creek reservoirs at 5%, 10%, 10%, and 12% of their total capacities, respectively
- \*Total includes over 40% imported water, including 500 acre-feet stored in June

### Imported Water



- 2014 State Water Project (SWP) and Central Valley Project (CVP) allocations:
  - » SWP allocation: 5% = 5,000 acre-feet (20% of allocation [1,000 acre-feet] may be delivered in summer, 80% after September 1)
  - » CVP allocations: 50% for Municipal and Industrial uses and Zero% for Irrigation for a total of 65,000 acre-feet
- 2013 SWP and CVP estimated carryover supplies to 2014: 31,227 acre-feet
- Reservoir storage information, as of July 1, 2014:
  - » Shasta Reservoir at 41% of capacity (51% of average for this date)
  - » Oroville Reservoir at 43% of capacity (52% of average for this date)
  - » San Luis Reservoir at 32% of capacity (51% of average for this date)
- Semitropic groundwater bank reserves: 262,665 acre-feet at start of year. Withdrawal of banked reserves may be limited by SWP operational constraints, with the available quantity to be determined; California Aqueduct Reverse Flow Project initiated to expand exchange potential
- No imported water management agreements executed in June; continuing to pursue several potential agreements
- Estimated Hetch Hetchy deliveries to Santa Clara County:
  - » Month of June = 4,800 acre-feet
  - » 2014 Total = 21,200 acre-feet, or 97% of the five-year average
  - » 2014 preliminary reduction = 10% voluntary announced by SFPUC on January 31

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## Treated Water



- Below average demands of 10,000 acre-feet delivered in June
- This total is 79% of the five-year average for June
- Estimated year-to-date = 44,300 acre-feet or 82% of the five-year average

## Groundwater



- Groundwater Storage: Total storage at the end of 2014 is projected to fall within Stage 3 (Severe) of the Water Shortage Contingency Plan. If the 20% water use reduction target set by the Board on February 25 is achieved, expected 2014 end of year storage will be within the range of Stage 2 (Alert)
- Santa Clara Plain:
  - » The June managed recharge estimate is 600 acre-feet. The year-to-date managed recharge estimate is 8,500 acre-feet, or 32% of the five-year average
  - » The June groundwater pumping estimate is 10,600 acre-feet. The year-to-date groundwater pumping estimate is 51,700 acre-feet, or 141% of the five-year average
  - » The groundwater level in Santa Clara Plain (San Jose) is about 32 feet lower than last year and about 34 feet lower than the five-year average
- Coyote Valley:
  - » The June managed recharge estimate is 530 acre-feet. The year-to-date managed recharge estimate is 3,800 acre-feet, or 65% of the five-year average
  - » The June groundwater pumping estimate is 740 acre-feet. The year-to-date groundwater pumping estimate is 4,400 acre-feet, or 80% of the five-year average
  - » The groundwater level in Coyote Valley is about 4 feet lower than last year and 9 feet lower than the five-year average
- Llagas Subbasin:
  - » The June managed recharge estimate is 510 acre-feet. The year-to-date managed recharge estimate is 4,400 acre-feet, or 37% of the five-year average
  - » The June groundwater pumping estimate is 3,500 acre-feet. The year-to-date groundwater pumping estimate is 18,600 acre-feet, or 113% of the five-year average
  - » The groundwater level in Llagas Subbasin (San Martin) is about 22 feet lower than last year and 32 feet lower than the five-year average

## Conserved Water



- Saved 56,000 acre-feet in FY13 from long-term program (baseline year is 1992)
- Long-term program goal is to save nearly 60,000 acre-feet in FY14
- Based on the District's Water Shortage Contingency Plan, the Board set a 2014 water use reduction target of 20%, in addition to long-term program savings
- Currently achieving a 13% reduction compared to 2013 (through April 2014)

## Recycled Water



- Estimated June 2014 production = 2,539 acre-feet (billed semi-annually)
- Estimated year-to-date = 10,097 acre-feet or 146% of the five-year average
- Silicon Valley Advanced Water Purification Center was completed and began delivery of high quality treated recycled water for blending with existing nonpotable water on March 25, 2014

**CONTACT US**

For more information, contact **Customer relations** at **(408) 630-2880**, or visit our website at [valleywater.org](http://valleywater.org) and use our **Access Valley Water** customer request and information system. With three easy steps, you can use this service to find out the latest information on district projects or to submit questions, complaints or compliments directly to a district staff person.

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# Section 1. Water Use Reductions

The district and its water retailers have a long history of implementing water conservation and water use efficiency in Santa Clara County (county). Because of the investments the water district and its water retailers have made in water conservation since 1992, water use in the county has remained relatively flat despite a 25 percent increase in population over the same time period.

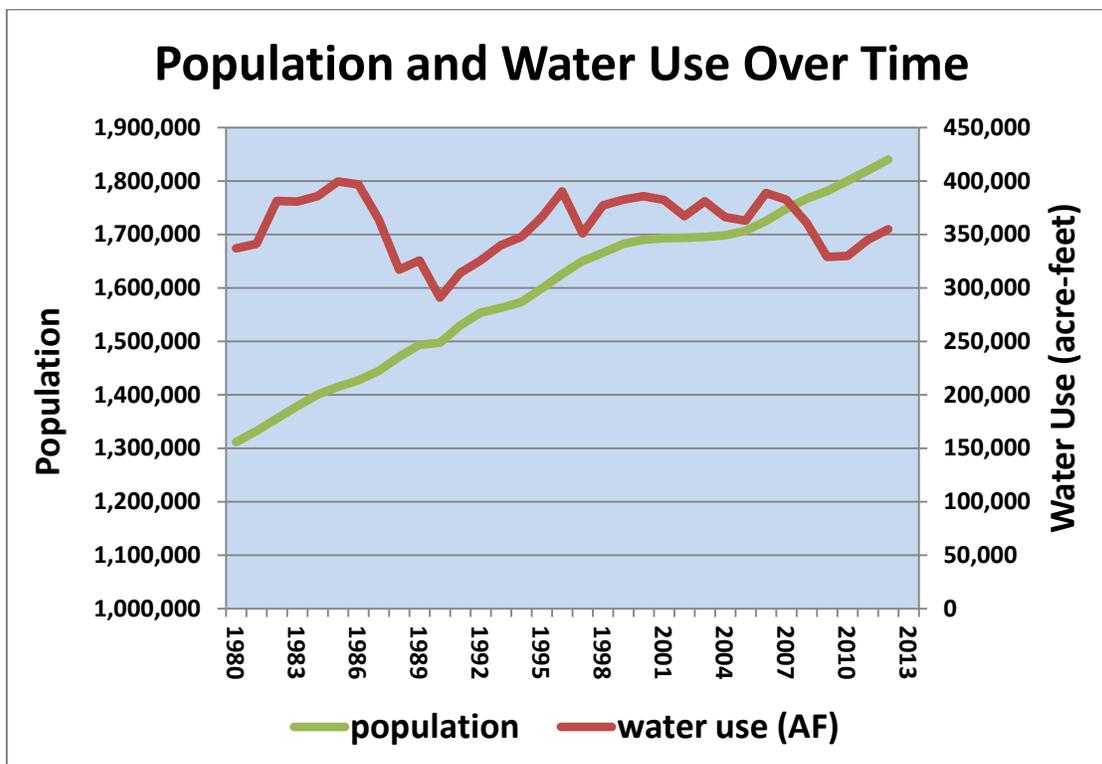


Figure 1 Population and Water Use

## A. District Water Use Efficiency Strategies

This section provides the context of the district's existing long-term conservation programs to the current efforts in response to the 2014 Drought.

### Long-term Water Conservation

The district's 2012 Water Supply and Infrastructure Master Plan (Water Master Plan) acknowledges that further investments are needed to ensure adequate water supply reserves in drought years. The "Ensure Sustainability" strategy adopted by the Board calls for doubling current levels of conservation from 56,000 acre-feet/year to 99,000 acre-feet per year over the next fifteen years, as well as other investments that will reduce the county's reliance on the Delta. All future growth in county water demands will be met through water conservation and recycled water. While the long-term Water Master Plan is being implemented, short-term gaps between

annual supply and demand can occur such as the current severe drought, and these are addressed through the Board-adopted Water Shortage Contingency Plan<sup>1</sup>.

The district and its major water retailers have a cooperative relationship in the implementation of a variety of water conservation programs in an effort to permanently reduce water use in Santa Clara County and is an important element in meeting long-term water reliability. Water conservation programs implemented since 1992 have had a large influence in continued demand reduction. This can be seen in Figure 1 with the relative stability of demands since the mid to late 1980s, even though population has increased significantly during the same period (Figure 1). Using the year 1992 as a baseline, the district saved 56,000 Acre Feet per Year (AFY) in year 2013 which is a little more than half of the district's long-term goal of 98,500 AFY by 2030.

### Short-term Water Use Reductions

In addition to our long-term programs there are times, such as the current drought, when we need additional savings. When the district's Board calls for short-term water reductions, as was done in January and February of 2014, the cities and water retailers consider the implementation of their water shortage contingency plan actions identified in their Urban Water Management Plans in order to achieve the necessary shortage response. Actions to achieve the desired shortage response may be different for each city/water retailer depending on service area composition (commercial, industrial, residential) and source of water supplies. However, some actions are common to several of the cities/water retailers, providing for more consistent implementation and messaging. Reducing water consumption during water shortages is generally achieved through behavioral changes. Short term reduction generally refers to these behavioral changes that reduce water use over and above long term conservation programs.

In response to the unprecedented water shortage situation being experienced this year, the water district is increasing and expanding its short-term measures and is strengthening efforts to foster its partnerships with its water retailers to promote water conservation. To that end, the district is working closely with the water retailers on program development as well as water conservation outreach and education. Please see our website for more information on our long standing programs and new efforts and rebates available in response to the current drought.

<http://www.valleywater.org/programs/waterconservation.aspx>

### Recycled Water/Water Re-use

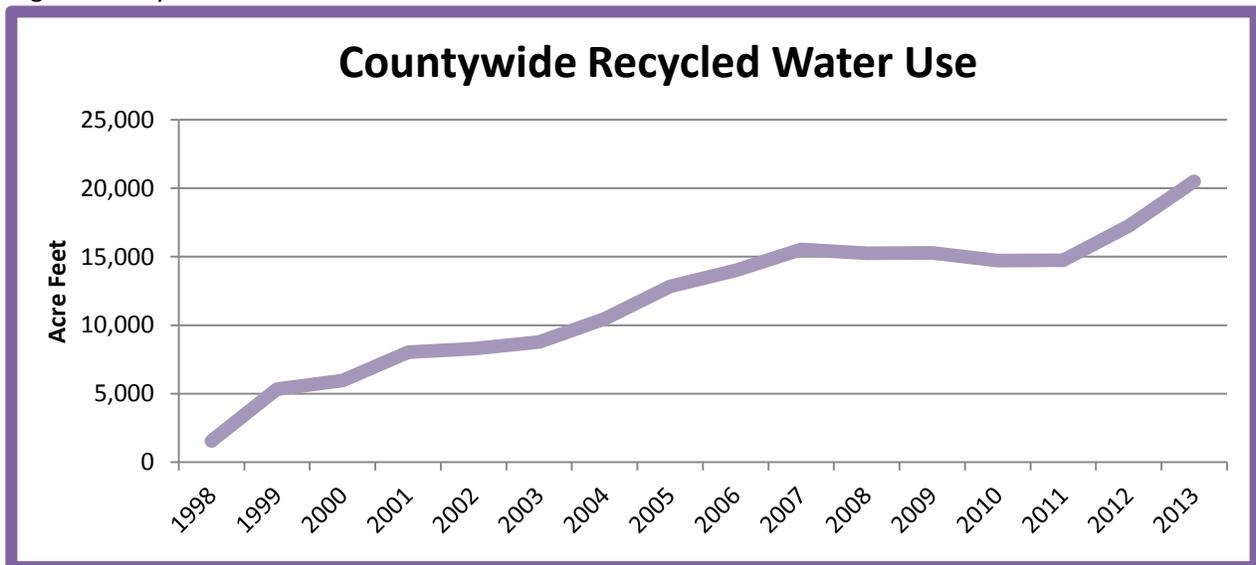
In addition to the district's water conservation programs, the water district has partnered with cities and water retailers in the county to develop recycled water supplies to reduce demand on potable supplies. Recycled water helps in times of drought as it is an all-weather reliable source

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<sup>1</sup> Santa Clara Valley Water District 2010 Urban Water Management Plan, <http://www.valleywater.org/Services/WaterSupplyPlanning.aspx>

of water. Approximately five percent of the county's total water use currently consists of recycled water, limited primarily to landscaping irrigation, agriculture irrigation, cooling towers, and industrial processes. This usage is critical now and into the future to meet water supply reliability needs. For instance, 20,600 AF of recycled water was used in 2013 countywide, thereby preserving an equal volume of drinking water supplies. The district plans to increase recycled water used in this county to at least 10 percent (approximately 40,000 AF) by year 2025 and its long-term goal is 50,000 AF by year 2030. During this time of drought, water retailers and the district are continuing efforts to expand use of recycled water in response to decreasing availability of potable supplies. Recycled water use data at the retailer level is not available on a monthly basis for all retailers; however, the most current information will be summarized in future Monthly Status Reports.

Figure 2 Recycled Water Use



## B. San Francisco Public Utilities Commission (SFPUC) Supplies

Eight retail agencies in Santa Clara County contract with the SFPUC to receive water imported from the Tuolumne River watershed as well as from watersheds around the Bay Area. This imported water is conveyed through the regional water system owned and operated by the SFPUC. The district does not control or administer SFPUC supplies delivered to the county; however, this supply reduces the demands on district-supplied water. The estimated 2013 SFPUC water use in Santa Clara County is 54,600 acre-feet, or almost 15 percent of total use.

On January 31, 2014, the SFPUC officially asked all customers of the Hetch Hetchy Regional Water System to voluntarily curtail water consumption. The goal is to reduce system-wide usage

## Water Use Reductions

by 10 percent. It is considering mandatory water rationing due to California's severe drought; however, at this time a decision has not been made. Since some water retailers rely on SFPUC for some, or all, of their supplies, they are calling for 10 percent reductions in their service areas.

## TOTAL COUNTY WATER USE BY MAJOR RETAILERS 2013 (Base Year) and 2014 (Reporting Year) in Acre Feet

<u>2013</u>	<u>North County Ground- water</u>	<u>South County Ground- water</u>	<u>Treated Water</u>	<u>SFPUC</u>	<u>SJWC Surface</u>	<u>2013 Monthly Total</u>	<u>2013 Cumulative Use Feb to Dec</u>
<i>January water use values are NOT used in water savings calculations or cumulative use values.</i>							
<i>Jan</i>	<i>3,055.8</i>	<i>1,191.7</i>	<i>5,627.5</i>	<i>3,309.0</i>	<i>1,807.1</i>	<i>14,991.1</i>	<i>14,991.1</i>
Feb	3,200.0	1,208.5	6,576.4	3,492.0	1,384.8	15,861.7	15,861.7
Mar	5,721.3	1,585.7	8,135.8	3,418.0	594.9	19,455.7	35,317.4
Apr	6,553.6	1,906.2	10,598.8	4,463.0	422.2	23,943.8	59,261.1
May	8,413.6	2,314.3	13,314.1	5,598.0	298.6	29,938.6	89,199.7
Jun	8,935.8	2,506.1	13,407.0	5,066.0	516.2	30,431.1	119,630.8
Jul	10,577.6	2,419.3	13,255.5	5,531.0	616.3	32,399.7	152,030.5
Aug	9,946.1	2,399.5	13,263.2	5,887.0	584.1	32,079.9	184,110.4
Sep	7,954.0	2,305.2	12,521.9	4,704.0	530.6	28,015.7	212,126.1
Oct	8,072.5	2,153.7	11,277.3	4,445.0	501.5	26,450.0	238,576.1
Nov	6,842.3	1,692.3	8,489.1	3,452.0	326.0	20,801.7	259,377.8
Dec	6,848.9	1,397.7	6,962.9	2,975.0	202.8	18,387.3	277,765.1
<b>Feb to May Totals</b>	<b>23,888.5</b>	<b>7,014.7</b>	<b>38,625.1</b>	<b>16,971.0</b>	<b>2,700.4</b>	<b>89,199.7</b>	
<b>Feb to Dec Totals</b>	<b>83,065.7</b>	<b>21,888.5</b>	<b>117,802.0</b>	<b>49,031.0</b>	<b>5,977.9</b>	<b>277,765.1</b>	

<u>2014</u>	<u>North County Ground- water</u>	<u>South County Ground- water</u>	<u>Treated Water</u>	<u>SFPUC</u>	<u>SJWC Surface</u>	<u>2014 Monthly Use</u>	<u>2014 Cumulative Use Feb to Dec</u>	<u>Cumulative % Savings from 2013 &lt;=&gt; savings</u>
<i>January water use values are NOT used in water savings calculations or cumulative use values.</i>								<i>Not Applicable</i>
<i>Jan</i>	<i>6,486.0</i>	<i>1,692.7</i>	<i>7,913.0</i>	<i>3,439.5</i>	<i>0.3</i>	<i>19,531.5</i>	<i>19,531.5</i>	
Feb	5,767.2	1,164.3	4,996.0	2,470.5	0.3	14,398.2	14,398.2	9%
Mar	7,337.4	1,305.2	5,530.0	2,848.0	113.4	17,134.0	31,532.2	11%
Apr	8,258.8	1,521.2	6,298.2	3,829.8	110.0	20,018.0	51,550.2	13%
May	11,275.9	2,166.5	8,515.2	4,971.6	54.9	26,984.1	78,534.3	12%
Jun	-	-	-	-	-			
Jul	-	-	-	-	-			
Aug	-	-	-	-	-			
Sep	-	-	-	-	-			
Oct	-	-	-	-	-			
Nov	-	-	-	-	-			
Dec	-	-	-	-	-			
<b>Feb to May Totals</b>	<b>32,639.2</b>	<b>6,157.1</b>	<b>25,339.4</b>	<b>14,119.9</b>	<b>278.7</b>	<b>78,534.3</b>		
<i>%Savings by Source of Supply</i>	<i>-37%</i>	<i>12%</i>	<i>34%</i>	<i>17%</i>	<i>90%</i>	<i>12%</i>		

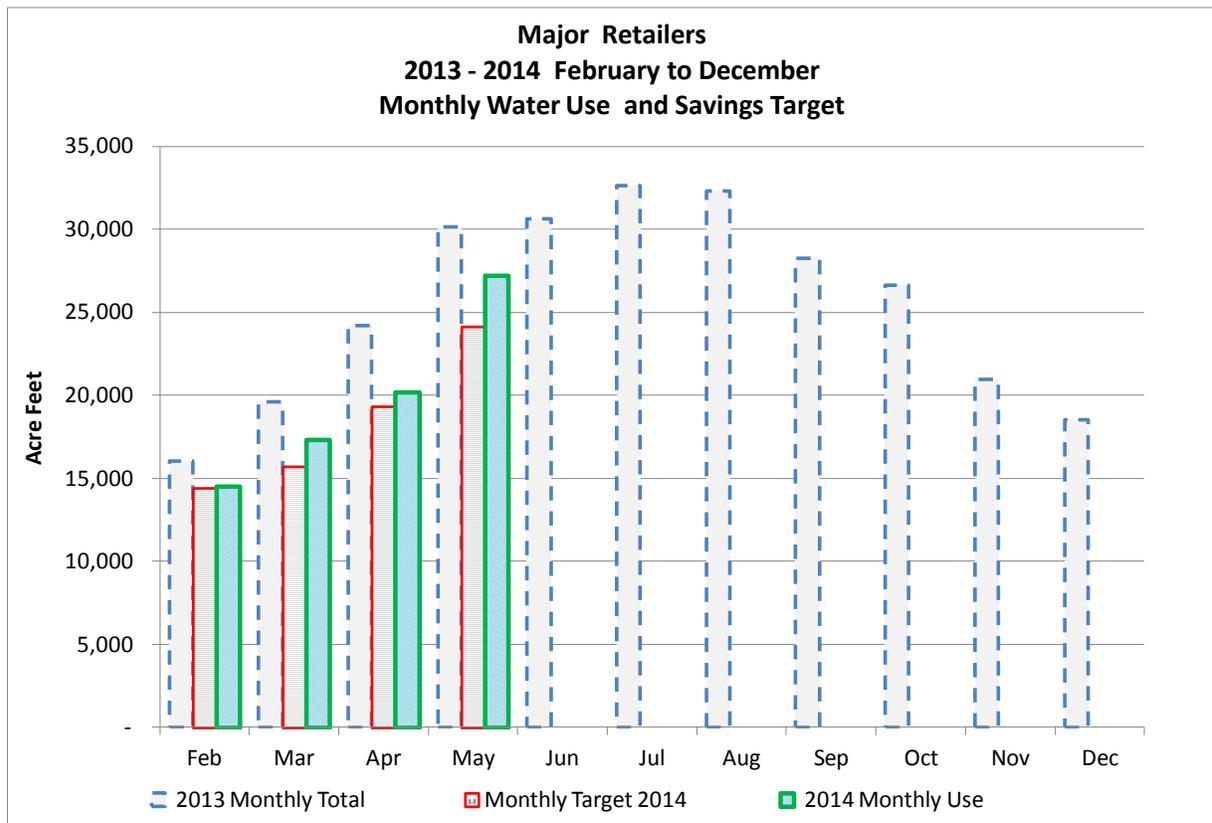
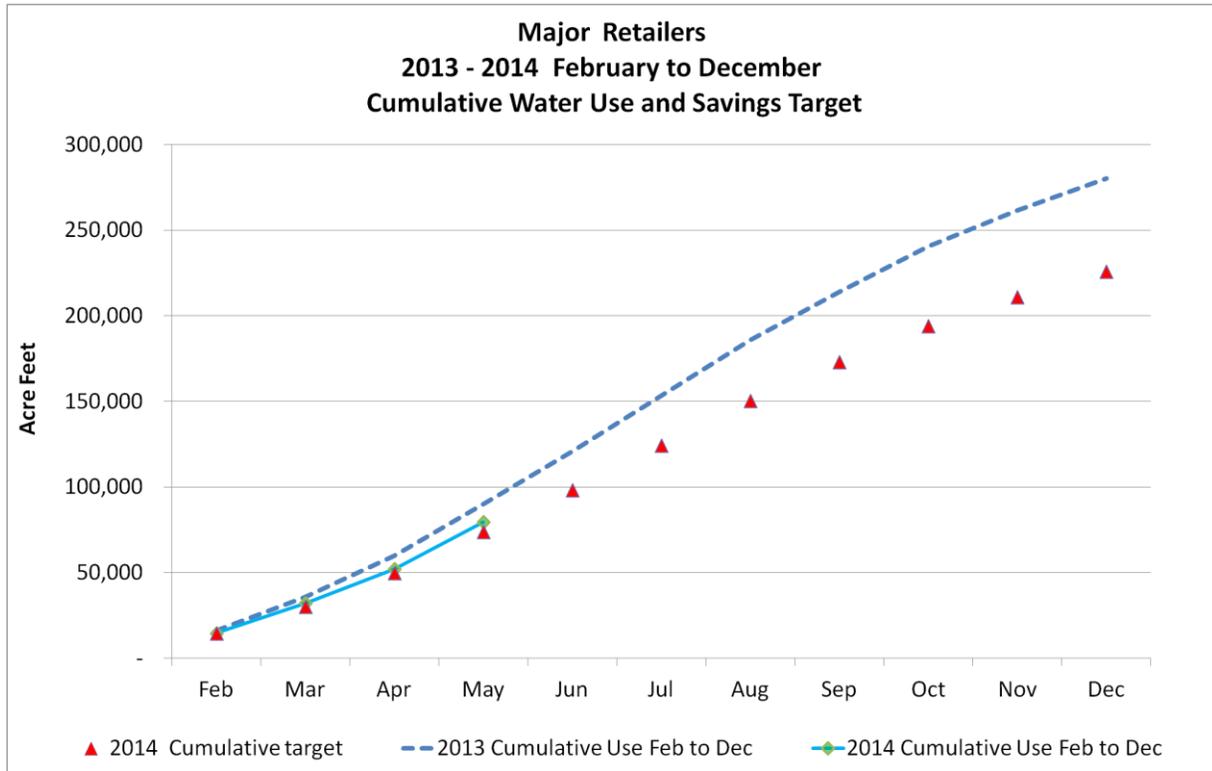
### Current monthly water use data is preliminary and subject to change.

These water use data sets do not include recycled water or surface water sales by the District  
Percent savings are shown in positive values where savings have been made and negative percent values where water use is higher than the base year period (2013)

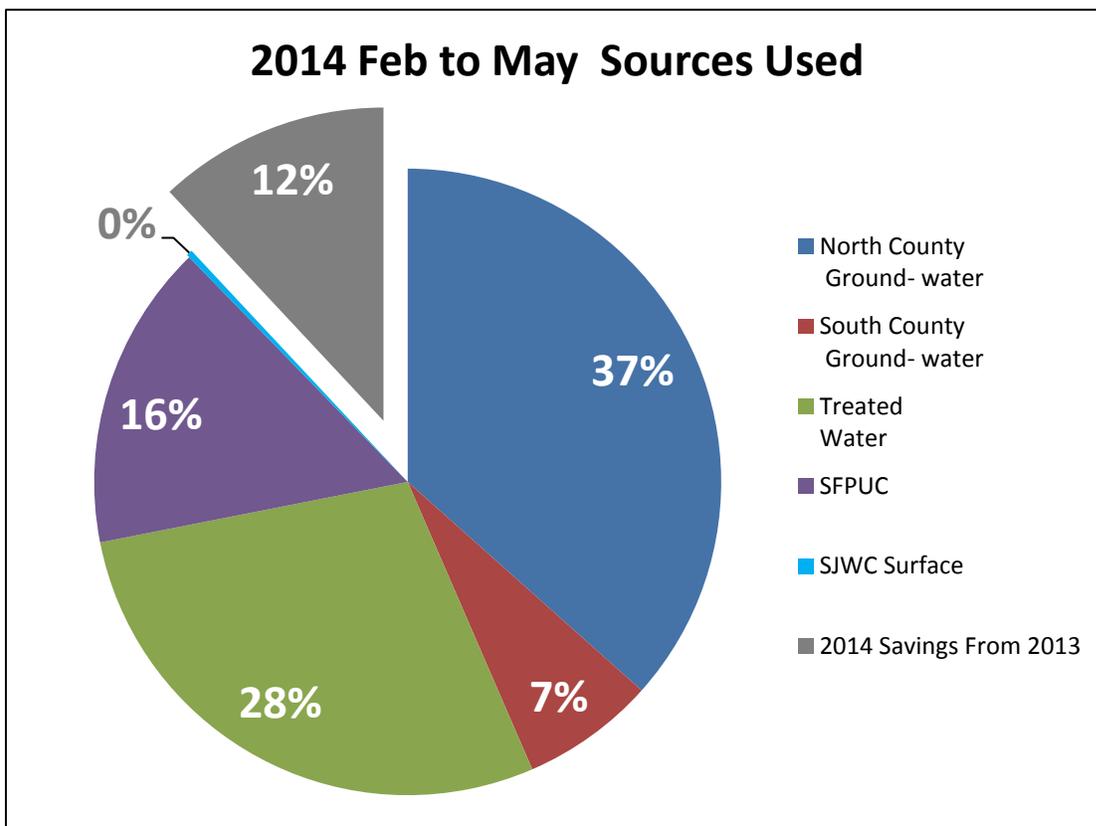
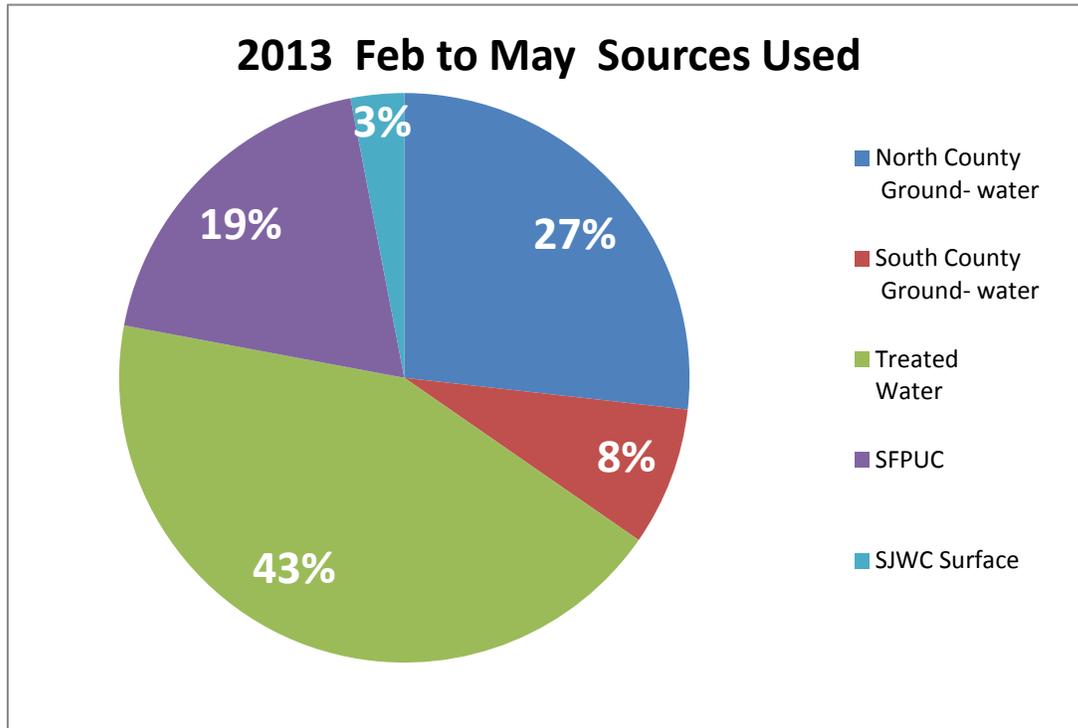
Cumulative total from February to current month

Savings Target for February is 10%. March through December is 20% of 2013 monthly use

## TOTAL COUNTY WATER USE BY MAJOR RETAILERS



## TOTAL COUNTY WATER USE BY MAJOR RETAILERS



## COUNTY WIDE RECYCLED WATER PRODUCTION 2013-2014

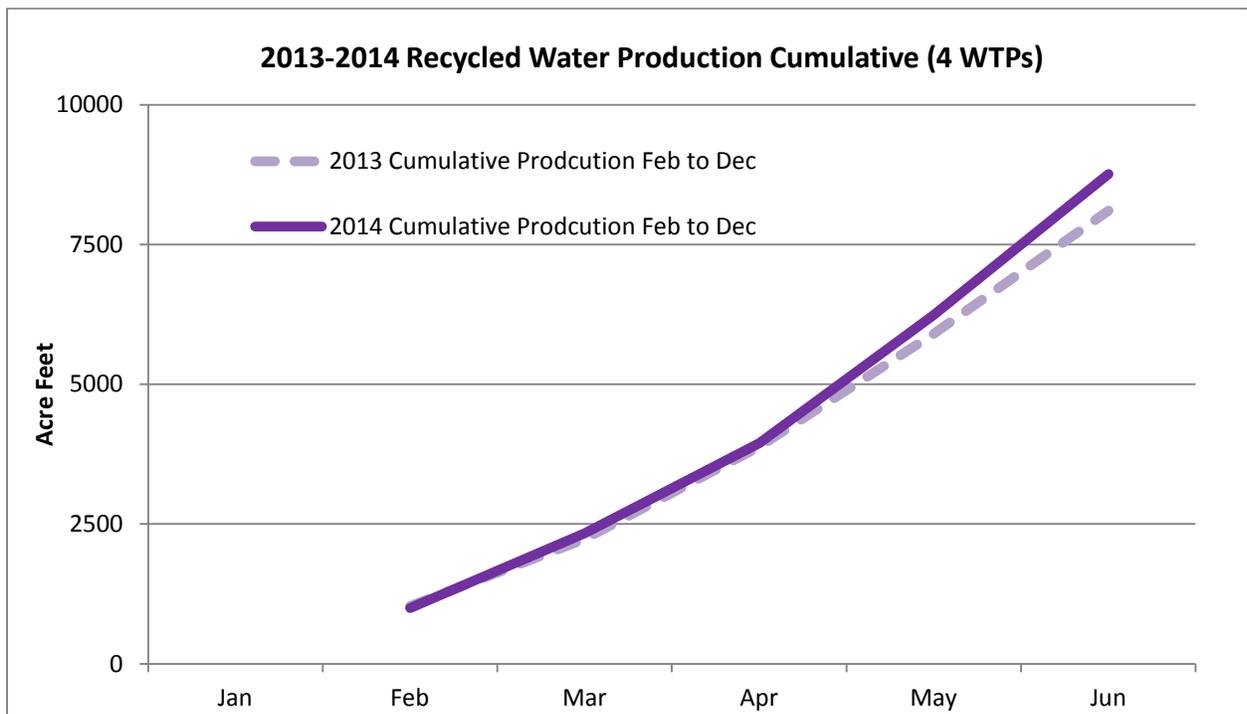
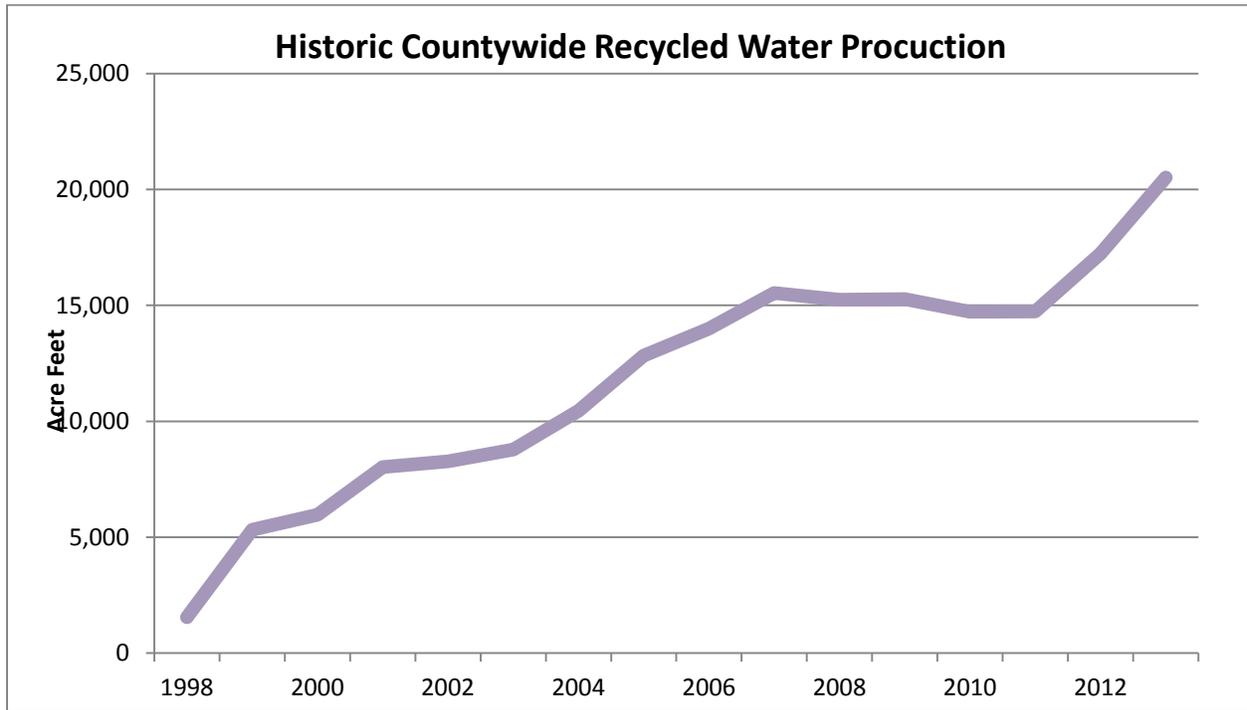
<u>2013</u>	<u>North County Recycled SBWRP WTP</u>	<u>South County Recycled SCRWA WTP</u>	<u>Palo Alto WTP</u>	<u>Sunnyvale WTP</u>	<u>2013 Monthly Production</u>	<u>2013 Cumulative Production Feb to Dec</u>
Jan	552.70	95.4	184.5	58.2	890.8	
Feb	688.70	113.2	177.7	52.0	1,031.6	1,032
Mar	819.1	140.7	177.9	61.4	1,199.1	2,231
Apr	1,203.0	195.4	194.9	60.6	1,653.9	3,885
May	1,574.3	205.7	189.5	51.6	2,021.1	5,906
Jun	1,718.3	245.3	180.7	53.6	2,197.9	8,104
Jul	1,985.0	284.5	222.1	62.8	2,554.4	10,658
Aug	1,824.8	230.5	263.5	57.6	2,376.4	13,034
Sep	1,629.6	157.1	247.5	56.0	2,090.2	15,125
Oct	1,412.0	115.8	245.4	53.7	1,826.9	16,952
Nov	993.1	113.7	218.7	53.7	1,379.2	18,331
Dec	894.9	142.2	220.5	37.2	1,294.8	19,626
<i>Feb to Dec 2013 Totals</i>	14,742.8	1,944.1	2,338.4	600.2	19,625.5	
<sup>1</sup> <i>Feb to Current Month Totals</i>	6,003.4	900.3	920.7	279.2	8,103.6	

<u>2014</u>	<u>North County Recycled SBWRP WTP</u>	<u>South County Recycled SCRWA WTP</u>	<u>Palo Alto WTP</u>	<u>Sunnyvale WTP</u>	<u>2014 Monthly Production</u>	<u>2014 Cumulative Production Feb to Dec</u>
Jan	851.92	116.67	280.01	51.60	1,300.20	
Feb	585.2	108.0	249.4	52.7	995.35	995
Mar	870.3	134.7	271.6	60.4	1,337.03	2,332
Apr	1,115.7	150.2	281.0	64.6	1,611.40	3,944
May	1,716.4	196.8	318.5	61.5	2,293.15	6,237
Jun	1,850.0	230.2	320.0	123.8	2,523.97	8,761
Jul	-	-	-	-	-	
Aug	-	-	-	-	-	
Sep	-	-	-	-	-	
Oct	-	-	-	-	-	
Nov	-	-	-	-	-	
Dec	-	-	-	-	-	
<i>Feb to Dec 2014 Totals</i>	6,137.7	819.8	1,440.5	362.9	8,760.9	995.4
<b>% of 2013</b>	<b>102%</b>	<b>91%</b>	<b>156%</b>	<b>130%</b>	<b>108%</b>	

Waters use values are in Acre Feet

Recycled water use at the retail level is still being collected.

## COUNTY WIDE RECYCLED WATER PRODUCTION 2013-2014



## Section 2. Retailers' Water Use Reductions and Savings

This section contains detailed water use data from 2013 to 2014, summarizes cumulative water use saving percent, and illustrates cumulative and monthly trends in water use and savings at the water retailer level.

Please see Section 5, Data Collection Methodology for more information

### Retailer Conservation Actions and Savings Summary

Water Retailer	Action	Cumulative Use (AF) Feb through May 2014 (to be updated)	Cumulative Percent Savings Feb through May 2014	May Savings Month to Month	June Savings Month to Month
San Jose Water Company	Activated CPUC rule 14.1: restrictions	38,484.2	10%	9%	Not Reported
Santa Clara, city	No resolution adopted at this time	6,257.3	7%	3%	12%
Sunnyvale	Recommending 15% voluntary	5,838.6	15%	12%	8%
San Jose Municipal Water	No resolution adopted at this time	5,699.4	14%	8%	5%
California Water Service	Activated CPUC rule 14.1; restrictions	3,811.4	15%	8%	7%
Palo Alto	Calling for 10% voluntary	3,710.8	17%	18%	Not Reported
Mountain View	Calling for 10% voluntary	3,302.8	17%	14%	Not Reported
Great Oaks	Activated CPUC rule 14.1: restrictions	3,237.2	15%	14%	8%
Milpitas	No resolution adopted at this time	3,014.5	11%	11%	8%
Gilroy	Will be calling for 20% voluntary	2,369.6	14%	10%	7%
Morgan Hill	Adopted resolution for Level 1 (20%)	2,169.4	16%	17%	14%
Purissima Hills Water	Calling for 10% voluntary	639.0	14%	-19%	Not Reported
Stanford*	Calling for 10% voluntary	Not Reported	Not Reported	Not Reported	Not Reported
<b>Total</b>		<b>78,534.3</b>	<b>12%</b>	<b>10%</b>	<b>9%</b>

Not Reported= These retailers have not provided data for this month as shown. Preliminary June 2014 use is 47% of total use compared to June 2013.

\*Stanford is reconciling data

## Retailer Cumulative and Monthly Savings Summary

<b>Cumulative Water Retailer Savings</b>	<b>Feb Savings</b>	<b>Feb to Mar</b>	<b>Feb to April</b>	<b>Feb to May</b>	<b>Feb to June</b>
San Jose Water Company	3%	6%	10%	10%	<i>Not Reported</i>
Santa Clara, city	7%	8%	9%	7%	8%
Sunnyvale	16%	15%	17%	15%	14%
San Jose Municipal Water	15%	16%	18%	14%	12%
California Water Service	13%	17%	18%	15%	13%
Palo Alto	33%	26%	17%	17%	<i>Not Reported</i>
Mountain View	24%	18%	18%	17%	<i>Not Reported</i>
Great Oaks	7%	11%	16%	15%	13%
Milpitas	11%	11%	11%	11%	10%
Gilroy	2%	11%	17%	14%	12%
Morgan Hill	-7%	9%	15%	16%	16%
Purissima Hills Water	45%	34%	28%	14%	<i>Not Reported</i>
Stanford	<i>Not Reported</i>				
<b>Combined Cumulative Savings</b>	<b>9%</b>	<b>11%</b>	<b>13%</b>	<b>12%</b>	<b>12%</b>
					-
<b>Month to Month Water Retailer Savings</b>	<b>Feb Savings</b>	<b>March to Mar</b>	<b>Apr to Apr</b>	<b>May to May</b>	<b>June to June</b>
San Jose Water Company	3%	9%	16%	9%	<i>Not Reported</i>
Santa Clara, city	7%	9%	9%	3%	12%
Sunnyvale	16%	14%	20%	12%	10%
San Jose Municipal Water	15%	16%	20%	8%	5%
California Water Service	13%	21%	20%	8%	7%
Palo Alto	33%	20%	2%	18%	<i>Not Reported</i>
Mountain View	24%	13%	18%	14%	<i>Not Reported</i>
Great Oaks	7%	14%	22%	14%	8%
Milpitas	11%	11%	10%	11%	8%
Gilroy	2%	18%	24%	10%	7%
Morgan Hill	-7%	20%	23%	17%	14%
Purissima Hills Water	45%	23%	22%	-19%	<i>Not Reported</i>
Stanford	<i>Not Reported</i>				
<b>Combined Month to Month Savings</b>	<b>9%</b>	<b>12%</b>	<b>16%</b>	<b>10%</b>	<b>9%</b>

























# Section 3. Water Conservation Measures

This section provides an overview of the water conservation measures taken by the, district municipalities and water retailers.

## A. Santa Clara Valley Water District Measures

Since the district’s call for water use reductions, the district has increased its water conservation outreach and education, and increased rebates for many of its programs, including:

- Landscape Conversion Rebate Program: rebates have increased to \$2 per square foot
- Irrigation Hardware Upgrades Rebate Program: several irrigation hardware rebates have increased.
- Graywater Laundry to Landscape Rebate Program: up to \$200 per residential site for properly connecting a clothes washer to a graywater irrigation system.
- Commercial Rebate Programs: several rebates for commercial facilities have increased, including the rebate for Connectionless Food Steamers, Commercial High-Efficiency Clothes Washers and the Custom/Measured Rebate

In addition, the district recently initiated a Safe, Clean Water and Natural Flood Protection Program to provide research grants to study and pilot-test new and innovative water conservation programs and efficient technologies. The program will provide \$1 million over a 10 year period. Finally, the Board has authorized \$1.25 million for drought response outreach and an additional \$1 million to support the increased rebate amounts.

## B. Water Retailer Measures

Local water retailers have responded to the district’s call in various ways. Several retailers are calling for 20 percent reductions and have activated or adopted water use restrictions. Common SFPUc retailers are calling for 10 to 15% percent voluntary. Nearly every water retailer is increasing their outreach and education efforts.

Water Retailer	Call for Conservation	Water Use Restrictions
California Water Service	20 percent	Enacted Rule 14.1 restrictions
Gilroy	Considering 20 percent	Considering permanent restrictions plus Level 1
Great Oaks	20 percent	Enacted Rule 14.1 restrictions
Milpitas	In discussion	Permanent restrictions
Morgan Hill	20 percent	Permanent restrictions plus Level 1
Mountain View	10 percent	Permanent restrictions
Palo Alto	10 percent	Permanent restrictions
Purissima Hills Water	10 percent	Permanent restrictions
San Jose Municipal Water	20 percent - treated water only	Permanent restrictions
San Jose Water Company	20 percent	Enacted Rule 14.1 restrictions

# Water Conservation Measures

Water Retailer	Call for Conservation	Water Use Restrictions
Santa Clara, city	Considering 20%	Permanent restrictions, considering additional volunteer measures
Stanford	10 percent	N/A
Sunnyvale	15 percent	Permanent restrictions plus limits on irrigation

## C. Other Municipality Measures (non retailer cities and the County)

Some of the cities or towns in Santa Clara County do not have a municipal water system. They are served by investor owned water retail agencies. However, many of them are moving forward with their own actions to influence water use reductions in their communities.

<u>City (non municipal water retailer)</u>	<u>Action</u>	<u>Outreach</u>
Campbell, City of	None at this time. San Jose Water Company, a retailer in Campbell, provided an update to the City Council.	Water saving tips on website, also will be included in city newsletter
Saratoga, City of	Approved staff recommendations to: 1. Update its Water Efficient Landscape Ordinance and 2, Direct staff to work collaboratively with us and San Jose Water Company in the communication of recommended water conservation measures and rebate programs.	Outreach through support of SJWC and District efforts. Information and tips on website.
Los Altos, City of	Adopted Resolution calling for 20%	Resolution includes voluntary measures consistent with model ordinance
Los Altos Hills, Town of	Received staff drought presentation. Recommendations: <ul style="list-style-type: none"> <li>• Support water retailers with drought enforcement ordinances</li> <li>• Support WCC on water conservation activities</li> <li>• Input from WCC before capital projects</li> <li>• Review Town ordinances on conservation (landscapes, pools, graywater, rain capture)</li> <li>• Incentives for water conservation</li> <li>• Letter to Palo Alto regarding recycled water</li> </ul>	Support others.
Los Gatos, Town of	No actions taken to date	Information on website.
Cupertino	Received staff report 'Cupertino Water Conservation'.	Released Fact Sheet: 2014 Drought and Water Conservation Fact Sheet <a href="http://www.cupertino.org/Modules/ShowDocument.aspx?documentid=8044">http://www.cupertino.org/Modules/ShowDocument.aspx?documentid=8044</a> Drought Resources page on city website.
Monte Sereno, City of	City Council and staff will be discussing local water conservation requirements imposed by their service provider, San Jose Water Company.	City released newsletter in Spring detailing SJW's Rule 14.1 restrictions that are in effect city-wide.
County of Santa Clara	Adopted resolution calling for 20%. Also, staff is developing a drought ordinance and plans to bring it back to the county board in the fall.	Distributing District drought/conservation flyers in their tax bills (over 500,000 over next 5 months).

# Section 4. Drought Response Strategies

The district's comprehensive drought response is being implemented through fifteen strategies grouped into four general categories: (A) water supply and operations; (B) water use reduction; (C) drought response opportunities; and (D) administrative and financial management.

## A. Water Supply and Operations

### 1. Secure imported water supplies.

This strategy includes working with state and federal project operators (California Department of Water Resources and U.S. Bureau of Reclamation) and contractors of the State Water Project (SWP) and Central Valley Project (CVP) to secure the district's 2013 contract carryover supplies and 2014 contract allocations. It also includes supporting initiatives to control Delta salinity; providing for return of water from the Semitropic Water Bank; determining the availability of supplemental water transfers and imported water carryover for 2015; and coordinating with San Francisco Public Utilities Commission (SFPUC) on drought impacts to the Hetch-Hetchy Project.

### 2. Manage and deliver available raw water supplies.

This strategy optimizes distribution of limited local and imported supplies, including deliveries to the three water treatment plants, operation of reservoirs and the groundwater recharge system, and deliveries to untreated surface water users. Given 2014 water supply conditions, ongoing communication is required with regulatory agencies and other stakeholders regarding changing conditions in reservoirs, creeks and recharge ponds, as well as working with untreated surface water customers to establish alternate sources of supply.

### 3. Optimize treated water quality and availability.

This strategy focuses on optimizing treatment plant operations and source water supplies to meet drinking water quality and reliability objectives, in coordination with the district's retail treated water contractors. It includes continuing to meet treated water quality objectives despite poorer water quality conditions in the Delta this year, and projected low storage levels in San Luis Reservoir that will affect both the quality of this source of supply as well as potentially even the ability to pump water from the reservoir during the late summer and early fall months. This strategy also includes operating the Campbell Well Field to augment supplies in the West Pipeline and working with SFPUC to use the Hetch-Hetchy Intertie when necessary to meet treated water schedules. Staff is continuing to work with retailers to reduce treated water use to the targeted level of 80 percent of the original contract quantities.

## B. Water Use Reduction

4. Reduce 2014 water use by 20 percent compared to 2013 water use.

This strategy includes promoting short-term and long-term actions to reduce water use in 2014, and tracking progress toward achieving the 20 percent target set by the Board on February 25, 2014. Activities include promoting the district's water conservation programs; coordinating with retail water agencies, municipalities and the County of Santa Clara on drought response ordinances and programs; and implementing a public outreach and education campaign.

5. Ensure that district facilities set a model for water conservation.

Many water conservation measures have been implemented at district facilities in past years, including low flow toilets, dual flush valves in high use areas, low flow aerators on faucets in restrooms and break areas, low flow devices in showers, drought tolerant landscaping and/or native vegetation, and 'Calsense' intelligent irrigation controllers for landscaping. In 2013, the district reduced water use by 9 percent (10.8 million gallons) compared to 2012 (12.1 million gallons). In 2014, the district will expedite additional actions that may serve as a model for achieving water savings, and reduce water use at district facilities by more than the countywide 20 percent water use reduction target.

6. Support customers and key stakeholders to minimize adverse drought impacts.

This strategy includes providing assistance to retail water agencies for their outreach, operations and conservation programs. The district meets regularly with the Water Retailers and subcommittees (Water Supply, Treated Water, Water Quality, Groundwater, Conservation, Communication and Ad Hoc Drought Response Subcommittees). Assistance is also being provided to surface water customers, agricultural water users, municipalities and others as they implement drought response. The Landscape Advisory Committee is convened to discuss drought response as it affects landscape businesses. This strategy includes tracking and reporting customer and stakeholder requests.

## C. Drought Response Opportunities

7. Leverage community awareness to advance long-term conservation measures.

This strategy includes measures that may be taken in 2014 to increase participation in the district's long-term water conservation programs. It also identifies, evaluates and supports new innovative conservation measures, including Safe Clean Water (SCW) Water Conservation Research Grant efforts, which may be implemented in calendar year 2015. Staff is also investigating opportunities for advancing sustainable, long-term savings through land use initiatives, where feasible.

8. Accelerate recycled water program development and implementation.

The current drought has raised interest in expediting implementation of both non-potable and potable reuse components of the district's Water Master Plan by existing and potential recycled water partners, legislators, water users and others. Staff is identifying and preparing high-priority recycled water projects (up to 10 million gallons per day) to make them shovel-ready within the next 12 months; pursuing regulatory proposals to provide for safe implementation of indirect and direct potable reuse projects; and completing master planning of all recycled water efforts. Other aspects of this strategy include support and pursuit of legislative proposals to streamline the implementation of recycled projects and provide potential funding.

9. Leverage opportunity to maintain uniquely accessible district facilities.

Many district facilities are expected to be more accessible this year for inspections and maintenance, given the limited surface water in district reservoirs and limited raw water operations. For example, some groundwater recharge ponds that have been in continuous service for decades may be drained completely this year providing opportunity for cleaning and refurbishment. This strategy takes advantage of unique conditions in 2014 to expedite work and advance district asset management. This strategy also includes installation of meters for untreated surface water accounts and pursuing metering of un-metered wells as long-term measures that will improve water accounting and drought response.

10. Leverage opportunity to further development of the district's workforce.

Effective drought response requires shifting staff resources to meet current needs, and this also creates opportunity for staff to gain new knowledge, skills and abilities. This strategy includes establishing processes for fair and expedited re-allocation of staff resources to assist with implementation of drought response so that the district is better able to serve the public this year and in future years through workforce development.

11. Advance community knowledge, awareness, and understanding of the water supply system and services provided by the district.

This strategy includes efforts to expand outreach communication and engagement with general public and working even more closely with media to convey drought and water conservation messages. This also provides an opportunity to expand outreach to key stakeholders (e.g., city councils) and regional groups.

### **D. Administrative and Financial Management**

12. Secure Federal and State funding to offset drought impacts and accelerate conservation and recycling programs.

Staff is tracking a number of State and federal legislative initiatives aimed at providing drought relief and funding to offset costs of drought response and accelerate water

supply and water use efficiency projects. This strategy focuses on grant application requirements and project eligibility to maximize funding opportunities for district and customer projects and programs. It also includes pursuing funding and reimbursements for district projects and programs, and collaborative opportunities to assist customers with offsetting financial impacts of the drought.

13. Leverage Emergency Operations Center (EOC) to assist in supporting drought efforts.  
Soon after the Governor's January 17, 2014, Declaration of Drought Emergency, the district activated its EOC at Level 1 to facilitate response to drought-status inquiries from the State Operations Center (SOC), Coastal Regional Operations Center (REOC) and the local, Santa Clara County Operational Area (OA). Emergency resource requests may be requested through the EOC, as determined by the district's EOC Director, and the EOC also helps track drought-related costs for potential reimbursement. The EOC communication structure provides opportunity for additional outreach to policy and staff representatives of local municipalities, the county and emergency response providers about the need to achieve the 20 percent water use reduction target and to promote water conservation.
14. Adjust district resource allocations necessary to respond to drought.  
This strategy includes identifying, tracking and processing budget adjustments and other adjustments of resources as needed to support overall implementation of drought response. In addition to staff resource adjustments discussed in Strategy #10, drought response is expected to include increased/adjusted budgets for an effective water use reduction campaign, additional pumping and water treatment costs, extraordinary maintenance projects, and supplemental imported water. The strategy includes clearly identifying the schedule impacts and other impacts of these resource adjustments as non-drought-related work is delayed or removed from project work plans.
15. Support the Board of Directors.  
This strategy includes ensuring that the Board is provided timely and accurate information on 2014 water supply conditions and drought response to support their efforts and linkages to the community. This strategy includes support for the Board Ad Hoc Conservation Committee and Ad Hoc Recycled Water Committee to discuss drought-related opportunities to advance these important programs. It also includes ensuring that Board advisory committees are informed of 2014 water supply, drought response measures, and implementation of the 2014 water use reduction campaign. Board updates are provided monthly on 2014 water supply and drought response, including progress toward achieving the 20 percent water use reduction target.

This section describes how water use data is collected by the district for the monthly drought response status report, in addition to an explanation of water savings targets and calculations.

## A. Water Use Data Disclaimer

Due to the need to communicate retailer water use data and savings progress in a timely manner, some of the water use data in this report may not have been confirmed by the retailer and is subject to further QA/QC and verification, and is therefore subject to change. The intent of this report is to illustrate a general month by month and cumulative trend in water use and savings efforts toward the goal of a 20 percent reduction in water use compared to the same period in 2013.

## B. Treated Water Data

The district measures the volume of treated water delivered to its treated water customers (major water retailers). Monthly treated water deliveries are measured by meters (scheduled, contract, non-contract, and total delivered) for each and all water retailers (contractors). Meters are recalibrated/maintained regularly and may error up to 2 percent. Otherwise, the water use values represent actual billed amounts.

## C. Groundwater Data

The groundwater data collection and reporting process includes sending a water production statement to the customer for them to complete and report their water use. Once the completed production statement data is reviewed and accepted by the district, the district considers the data to be validated. This process which was developed in consideration of the requirements of the district Act, results in at least a 6 week delay in groundwater production reporting.

## D. SFPUC Water Data

The San Francisco Public Utilities Commission (SFPUC) has eight common retail water customers with the district. SFPUC reports monthly water use directly to the district (historically that data was provided to BAWSCA, who in turn provided it to the district). Five of the common customers have their metered deliveries measures by SFPUC at the beginning of the month. Three of the customers (Purissima Hills, Stanford and Palo Alto) have their meters read on the 18<sup>th</sup> or 19<sup>th</sup>, and therefore their monthly data is split between two months. For the purposes of this report, water use for the month, will be that water used as measured by the following month (i.e. March water use is water use measured in April). It should be noted that the SFPUC provides monthly billing reports labeled as Monthly Water Sales. That data contains water sold and used in the previous month (i.e. March Water Sales report contains February use data for the many of the customers, including the five common customers whose meters are read on the first of March, for instance).

### **E. Surface Water Data**

For the purpose of this report, surface water data represents water use by large water retailers and does not include surface water deliveries by the district to its non-potable surface water customers. The retail customers included in the surface water section include San Jose Water Company and Stanford University who both have surface water rights. San Jose Water Company has its own water treatment plant for their surface water and Stanford uses their surface water for non-potable uses.

### **F. Recycled Water Use**

Historically, recycled water use has been tracked in-county by sales at the treatment plants. However, for the purposes of this report, an effort is being made to collect this data at the water retailer level. This requires even more coordination and participation with the recycled water retailers. Many of the water retailers do not read their meters monthly and therefore their recycled water use is not reported in this monthly report. It is important to know how county water savings may be accommodated by increases in water use. If the data can be collected monthly it will be reported as such, otherwise it will be reported in the semiannual and annual reports.





drought  
status report

RETAILER'S  
USE REDUCTION

water supply & operations

**WATER USE REDUCTION**

DATA COLLECTION METHODOLOGY

Treated water recycled water

**WATER CONSERVATION MEASURES**

water use efficiencies

imported water surface water **RECYCLED WATER**

drought response strategies water tracker

**WATER SUPPLY & OPERATIONS**

water supplies WATER TRACKER data collection methodology

**DROUGHT**

water use efficiencies water conservation RECYCLED WATER GROUNDWATER water supplies

**WATER USE REDUCTION** water supply & operations drought status report water tracker

WATER USE EFFICIENCIES **WATER CONSERVATION**

DATA COLLECTION METHODOLOGY water supplies SURFACE WATER imported water surface water

**RETAILER'S USE REDUCTION** TREATED WATER water supplies

**WATER USE REDUCTION**

Groundwater DROUGHT RESPONSE STRATEGIES drought status report Water Conservation groundwater

treated water **DATA COLLECTION METHODOLOGY** drought status report SURFACE WATER

**WATER USE EFFICIENCIES** Retailer's Use Reduction

WATER SUPPLY & OPERATIONS IMPORTED WATER

groundwater water conservation measures water supply & operations

**water conservation** water supply & operations water tracker Groundwater

DROUGHT STATUS REPORT

DATA COLLECTION METHODOLOGY

**DROUGHT RESPONSE METHODOLOGY**

**WATER SUPPLY & OPERATIONS**

WATER SUPPLIES imported water **RECYCLED WATER**

**SURFACE WATER** Treated Water DROUGHT STATUS REPORT

groundwater Water Conservation Measures

WATER SUPPLY & OPERATIONS data collection methodology

WATER USE EFFICIENCIES



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